

Type C15 Series Solenoid Valve



DESCRIPTION

A solenoid valve designed for direct mounting onto 1/4 turn pneumatically operated actuators meeting 'NAMUR' standard fixing dimensions.

- Hazardous area approved pilot operators
 - ExnA, Ex e mb, Exd & Exia
- Various international approvals
 - ATEX, IECEx, FM/CSA, CCCEX & UKCA
- Body material available in
 - Aluminium (standard)
 - Stainless Steel
 - Brass
- Seal kit available - VSKC15P

Valve Assembly illustrated with an Exia coil for reference only.

FEATURES

- Integrated CNOMO interface coil units, including various hazardous area options
- Integrated Exhaust To Spring (ETS 3/2 only) feature
- 1/4" BSP mains air connection, also available in NPT ports
- Top face air connection
- Single coil spring return function or double coil stay put function
- Pilot exhaust caps fitted as standard
- The valve is fitted with a change-over plate that allows the valve to be converted from 3/2 to 5/2 function quickly and easily for spring return and double acting actuators
- SIL 2 capable (De-energise to trip @ HFT=0), SIL 3 Capable (De-energise to trip @ HFT=1) (3/2 Solenoid Function only)
- Our manual override options are **NOT** currently covered by SIL Certification

PRODUCT CODE: C15

OPERATOR

P

OPTION 1
COIL

VOLTAGE
DESIGNATOR

OPTION 2
SEE BELOW
PRODUCT CODE
DETAILS

Any of the below options that are not required enter "0" in relevant box.

Operator

- 1 8 Spring return, internal pilot air feed
- 1 9 Double solenoid, internal pilot air feed
- 8 0 Spring return, external pilot air connection
- 9 0 Double solenoid, external pilot air connection

Coil

- A Exia
- B Terminal Box
- D Exd
- H Plug & Socket Exia
- K MC30 Plug & Socket
- L MC30 Plug & Socket with LED
- P Plug & Socket
- S Exia Stainless Steel Housing
- Y ExnA Plug & Socket
- 4 Stainless Steel Housing
- 5 ExnA Stainless Steel Housing
- 8 Ex e mb Stainless Steel Housing

Option 1

- C Lever manual override
 - D Push button manual override
 - S Screw driver override
 - 0 No option required
- *Not SIL approved with manual override options

Voltage

- B 24v DC
- H 24v DC Low Power⁽¹⁾
- R 24v AC (50/60 Hz)
- T 110v AC (50/60 Hz)
- U 240v AC (50/60 Hz)

* A comprehensive range of non-standard voltages available on request

Designator

- A ATEX / IECEx / CCCEX⁽²⁾
- B ATEX / IECEx / CCCEX (10mA)⁽⁴⁾
- F FM / CSA⁽³⁾
- J ATEX Ex e mb

Option 2

- B Valve body brass
- C Valve body brass and NPT ports
- D Valve body brass, NPT ports and 1/2" NPT electrical connection
- E 1/2" NPT electrical connection
- L Low temperature duty -40°C
- M NPT ports and 1/2" NPT electrical connection
- N NPT ports
- P Valve body stainless steel, NPT ports and 1/2" NPT electrical connection
- R Valve body stainless steel and NPT ports
- S Valve body stainless steel

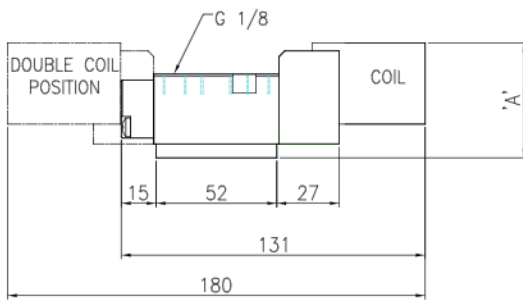
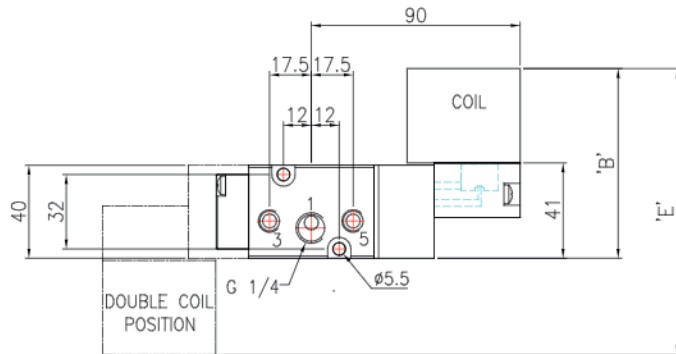
* A comprehensive range of non-standard options available on request

Note:

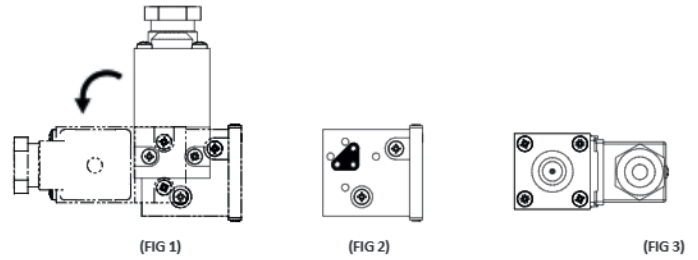
- (1) "H" option not available with Exia solenoids
- (2) IECEx & CCCEX only available with Exia and Ex db solenoids
- (3) FM only available in Exia
- (4) Exia Only

COIL ORIENTATION

The solenoid pilot can be mounted in two possible positions by rotating the solenoid base through 90° (FIG 1). This is achieved by releasing the two M4 pozi-drive screws which secure the solenoid pilot to the valve body. When changing the solenoid pilot position care should be taken to ensure the triangular gasket seal is in place. (FIG 2)



The coil itself can be rotated in 90° steps by releasing the four securing screws. (FIG 3) When rotating the coil care should be taken to ensure the core assembly (core, spring, seal and washer) remains intact and aligned correctly. This is easily achieved by only lifting the coil the small amount required to clear the screws enabling the coil to be rotated.



DIMENSIONS (mm)

COIL TYPE	A	B	C
Moulded Plug & Socket	50	85	130
Heavy Duty Mazek Plug & Socket	50	85	130
Standard Terminal Box	50	93	146
SS Terminal Box	58	110	180
ExnA SS Terminal Box	58	110	180
Exd SS Terminal Box	58	110	180
Piezo Operator	48	94	148
Exia SS Terminal Box	58	117	194
Exia Std. Terminal Box	50	100	160
Exia Plug & Socket	50	88	136

MATERIAL SPECIFICATIONS

STANDARD

Body and End Caps	Black Anodised Aluminium (Dural)
Spool	Hard Anodised Aluminium PTFE Impregnated
Spacers	Glass Filled Acetal
Seals	Nitrile (Alternative Seals Available)
Spring	Music Wire
Mounting Screws	Stainless Steel
Change-over Plate	Nylon 66 30% Glass Filled
Gasket	Nitrile

VALVE SPECIFICATIONS

STANDARD

Inlet Port Connection Size	1/4" BSP
Exhaust Port Connection Size	1/8" BSP
Working Pressure	3 to 10 bar
Cv Factor	0.7
Flow Rate (at 6 bar with 1 bar pressure drop)	675 l/min
Maximum Ambient Temperature	+80°C
Minimum Working Temperature	-20°C

COIL DETAILS

Coil Type	Plug & Socket	Terminal Box	ExnA	Exd	Ex e mb	Exia
Area Class	Safe	Safe	Zone 2	Zone 1 & 2	Zone 1 & 2	Zone 0, 1 & 2
Area Category	N/A	N/A	ExnA II T4 - T6	Exd IIC T3 - T6	Ex e mb IIC T4	Exia IIC T6
Ingress Protection	IP65	IP65	IP65	IP66	IP66	IP65
Cable Entry	PG.9	M20 x 1.5	PG.9	M20 x 1.5	M20 x 1.5	M20 x 1.5
Ambient Temperature	-20°C to +80°C	-20°C to + 80°C	-20°C to + 80°C	-20°C to +80°C	-20°C to +80°C	-20°C to +80°C
Magnetic Wire Class	H	H	H	H	H	H

Further solenoid options available on request

